

CLAIMS

1 1. A method of identification of a fingerprint, comprising
2 obtaining for a fingerprint a fingerprint image; storing reference fingerprints
3 in a databank; comparing the obtained fingerprint image with the reference
4 fingerprints for identification; before the identification determining for each
5 reference fingerprint in comparison with the obtained fingerprint image a
6 similarity degree; sorting the reference fingerprints in the databank in
7 accordance with the similarity degree; and performing the identification of the
8 fingerprint beginning with the reference fingerprint which leads to a greatest
9 similarity degree.

10 2. A method as defined in claim 1; and further comprising
11 performing the identification in accordance with a details comparison.

1 3. A method as defined in claim 1; and further comprising
2 performing the identification in accordance with a correlation of the
3 fingerprint with the corresponding reference fingerprint.

1 4. A method as defined in claim 1; and further comprising
2 determining the corresponding similarity degree by a comparison of
3 properties of a corresponding area around a reference point of the
4 fingerprint with each property of the corresponding area of the reference
5 fingerprint.

6 5. A method as defined in claim 4; and further comprising
7 using core and delta points as reference points.

1 6. A method as defined in claim 5; and further comprising
2 placing square areas around the reference point of the fingerprint;
3 multiplying the area with window function; transforming the area by means
4 of a first integral transform in a space frequency region; determining features
5 in the areas of the reference point; evaluating for the features the space
6 frequencies in accordance with amount and direction; and determining by the
7 features of the fingerprint and the reference fingerprint correspondingly the
8 similarity degree for the corresponding reference fingerprint.

1 7. A method as defined in claim 6; and further comprising
2 laying the square areas in different sizes.

1 8. A method as defined in claim 6; and further comprising
2 breaking a power density spectrum of the areas of the reference points in
3 sectors and rings; summing for the sectors and the ring the powers of the
4 corresponding containing space frequencies so that for the sectors a degree
5 for the orientation is provided and for the rings a degree for the amount;

1 forming thereby a ring vector and a sector vector; forming the ring vector and
2 the sector vector as a feature vector; and comparing with a feature vector of
3 the reference finger marks to determine the similarity degree.

will
1.12.16

1 ⁹10. A method as defined in claim 9; and further comprising
2 joining the comparison of the ring vector and the sector vectors before and
3 after a second integral transform to the similarity degree for the
4 corresponding reference fingerprint.

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13. A device for identification of a fingerprint, comprising a

for determination of a fingerprint image, said processor being formed so that

in said databank to determine a similarity degree for each reference

databank in accordance with the similarity degree, said processor performing

greatest similarity degree, said processor exhibiting a result of the

-27-